



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

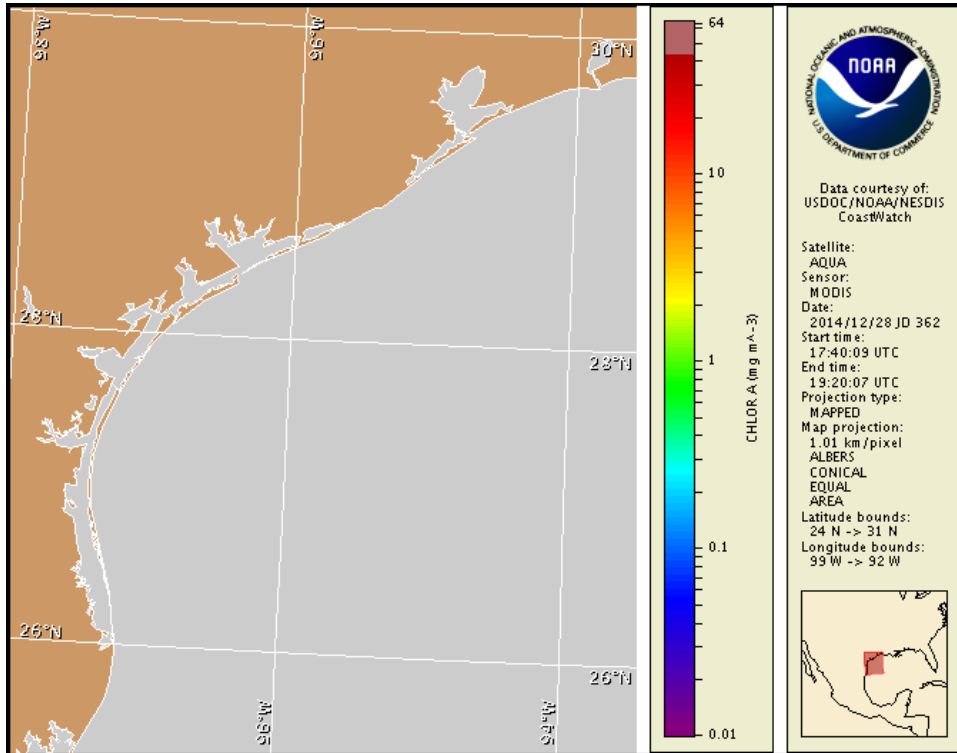
Monday, 29 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 22, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 19 to 22: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/envconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to background concentrations along the coast of Texas. No respiratory irritation is expected alongshore Texas Monday, December 29, 2014 through Monday, January 5, 2015. Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

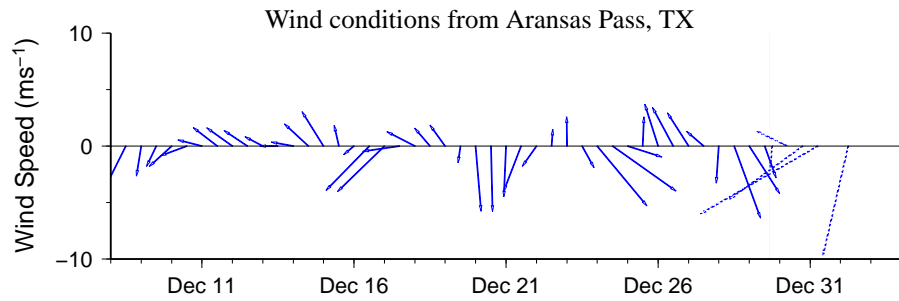
Analysis

Sampling from Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, continues to indicate that *Karenia brevis* concentrations range between 'not present' and 'background' (TAMU; 12/22-12/29). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (12/28, shown left) is completely obscured by clouds from Sabine Pass to the Rio Grande, limiting analysis in these regions. In MODIS Aqua imagery from December 24 (not shown), patches of elevated chlorophyll (2-7 $\mu\text{g/L}$) were visible stretching along- and offshore the Texas coastline from San Luis Pass to the Rio Grande. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 40 km south from the Port Aransas region from December 28, 2014 to January 1, 2015.

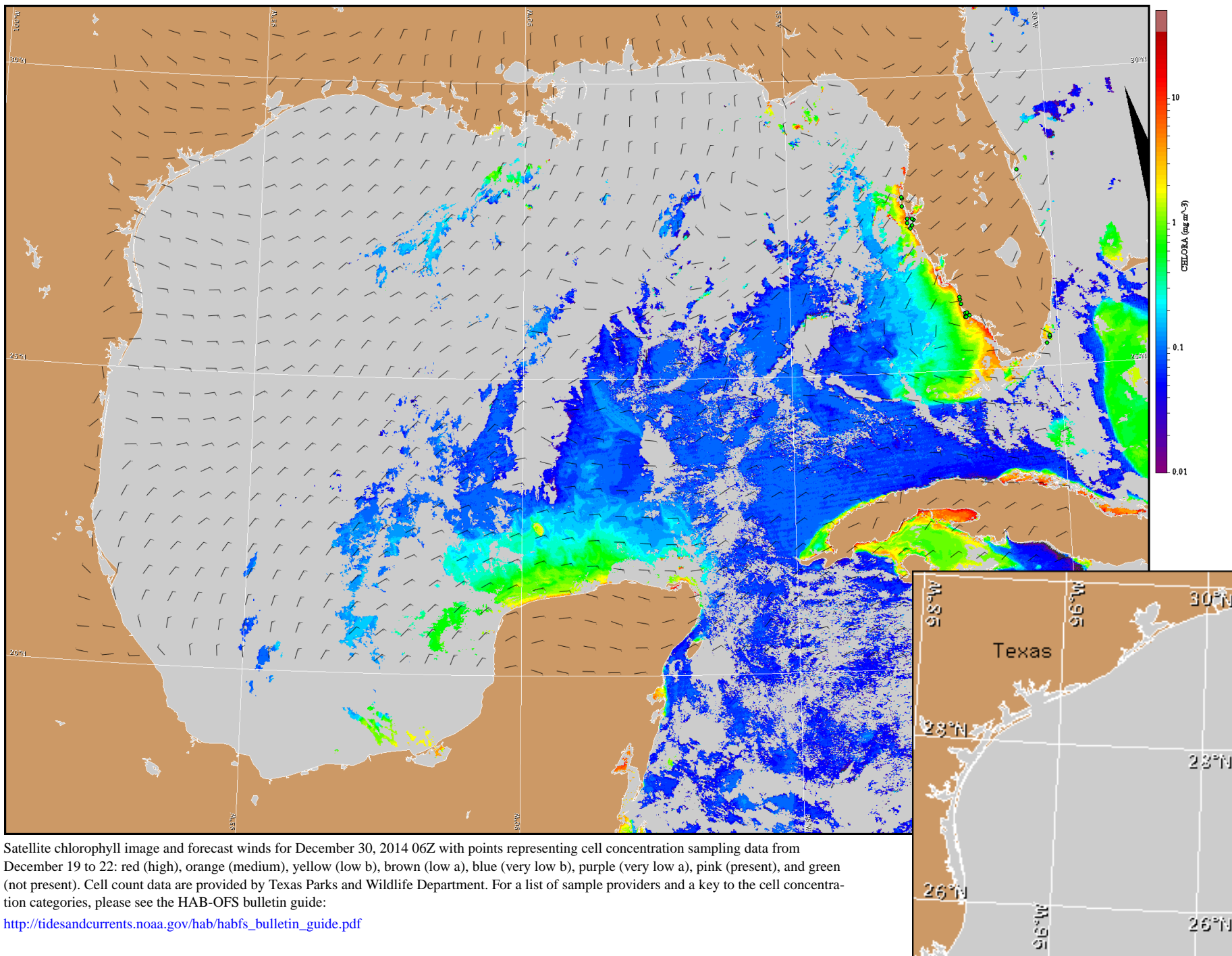
Keeney, Derner



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Port Aransas: Variable winds (5kn, 3m/s) today becoming northeast winds (5-25kn, 3-13m/s) this afternoon through Thursday. East winds (10-15kn, 5-8m/s) Thursday after midnight. Southwest winds (5-10kn) Friday shifting south Friday afternoon. Southeast winds (5kn) Friday night becoming northwest (10-15kn) after midnight.



Satellite chlorophyll image and forecast winds for December 30, 2014 06Z with points representing cell concentration sampling data from December 19 to 22: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).